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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,669	07/17/2000	Eric P. Traut	068167.0103	8184

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EXAMINER

CHUONG, TRUC T

ART UNIT PAPER NUMBER

2179

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/617,669

Applicant(s)

TRAUT ET AL.

Examiner

Truc T Chuong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This communication is responsive to the communication, filed 11/24/04.
2. Claims 1-20 are pending in this application. Claims 1, 8, 11, and 12 are independent claims, and all independent claims are amended. This action is made non-final.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 6, 8-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santoro et al. (U.S. Patent No. 6,724,403) in view of Vineyard, Jr. et al. (U.S. Patent No. 6,727,920 B1).

As to claim 1, Santoro teaches a computer system for running one or more software applications, wherein the software applications are suitable for generating a video output, said single computer system comprising:

a host operating system suitable for displaying a graphical user interface (a user interface for displaying tiles (thumbnails) representing reduced sizes of information sources, applications, and programs, e.g., col. 6 lines 38-59, and figs. 1 & 4); and

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wherein the host operating system is able to display for a user a reduced-size (miniaturized thumbnails, e.g., col. 8 lines 35-67) that are being operated in a background mode (dynamic bookmarking, e.g., col. 8 lines 29-65, col. 9 line 25, and fig. 1);

although Santoro teaches the thumbnails can be from different platform such as: audio, broadcast signal (e.g., col. 9 lines 10-17), Santoro does not clearly teach that there are multiple emulated operating systems being emulated by one or more emulator programs running on the host operating system. Vineyard clearly teaches that there are more than one operating systems can be selected from a list (fig. 4). It would have been obvious at the time of the invention, a person with ordinary skill in the art would like to have the multiple operating systems of Vineyard in the multiple display resource of Santoro to allow the user to select a desired operating system via a user activatable control (col. 3 lines 30-32).

As to claim 2, Santoro in view of Vineyard teaches the computer system of claim 1, further comprising one or more virtual video memory components suitable for storing the video output of the emulated operating systems (e.g., col. 4 lines 34-54, and fig. 1 & 4).

As to claim 6, Santoro teaches the computer system of claim 1, wherein the graphical user interface is a windowing environment suitable for displaying one or more windows (e.g., col. 6 lines 38-59, and figs. 1 & 4); and

wherein the portion of the graphical user interface comprising the reduced-size representation is a window (miniaturized thumbnails, e.g., col. 8 lines 35-67).

As to claim 8, it is individually similar in scope to claim 1 above; therefore, rejected under similar rationale.

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As to claim 9, Santoro teaches the computer system of claim 8, wherein the reduced-size representations are representations of the video outputs of the virtual machines that are being operated in the background mode (e.g., col. 6 lines 38-59, and figs. 1 & 4).

As to claim 10, the modified Santoro teaches the computer system of claim 9, further comprising a virtual video memory associated with each of the virtual machines (Vineyard teaches more than OS, fig. 4) ; and

wherein the reduced-size representations are generated from the video information stored in the virtual video memory associated with each virtual machine (Vineyard teaches more than OS, fig. 4).

As to claim 11, the modified Santoro teaches a method for displaying a reduced-size image of multiple emulated computer systems executing on a single computer system, said method comprising the steps of:

suspending one or more of the multiple emulated computer systems by saving to memory in the host computer system the image of the emulated computer system (running background mode, e.g., col. 8 lines 29-65, fig. 1 and Vineyard, e.g., fig. 4); reading in at the emulator program from memory in the host computer system the image of the suspended emulated computer system (running background mode, e.g., col. 8 lines 29-65, fig. 1 and Vineyard, e.g., fig. 4); interpreting in the emulator program the contents of the saved image of the suspended emulated computer system (Tiles, grids and content are created, saved and restored via the metabase, e.g., col. 15 lines 52-64);

displaying a reduced-size representation of the suspended emulated computer system (running background mode, e.g., col. 8 lines 29-65, fig. 1 and Vineyard, e.g., fig. 4).

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As to claim 12, Santoro teaches a method for displaying a reduced-size image of multiple emulated computer systems executing on a single computer system, said method comprising the steps of:

reading in at the emulator program from memory in the host computer system the image of the emulated computer system; interpreting in the emulator program the contents of the image of the emulated computer system (e.g., col. 6 lines 38-59, and figs. 1 & 4);

displaying a reduced-size representation of the emulated computer system (figs. 1 & 4);

periodically updating the reduced-size representation of the emulated computer system (dynamic bookmarking, e.g., col. 8 lines 29-65, col. 9 line 25, and fig. 1).

As to claims 13-15, and 17-20, they are method claims of system claims 1, 1, 2, 8, 1, 9, and 10. Note the rejections of claims 1, 1, 2, 8, 1, 9, and 10 above respectively.

5. Claims 3-5, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Santoro et al. (U.S. Patent No. 6,724,403) in view of Vineyard, Jr. et al. (U.S. Patent No. 6,727,920 B1), and further in view of Ote et al. (U.S. Patent No. 5,367,628).

As to claim 3, the modified Santoro in view of Vineyard teaches the computer system of claim 2, but the modified Santoro does not teach wherein one or more of the video memory components are VRAM memory. Ote clearly teaches VRAM memory (col. 4 lines 47-56, and figs. 2-3). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to have this highly desirable feature of Ote's VRAM into the modified system of Santoro to provide fast-block-transfer access to the internal memory.

As to claim 4, the modified Santoro teaches the computer system of claim 1, wherein the emulated operating systems operating in a background mode are active (dynamic bookmarking, e.g., col. 8 lines 29-65, col. 9 line 25, and fig. 1), and one or more thumbnail images (col. 6 lines 38-59, and figs. 1 & 4); but the modified Santoro does not clearly show wherein information stored on the video memory components at predetermined intervals. Ote clearly teaches periodically transfer display text and image data, col. 3 lines 50-55, and col. 4 lines 47-55). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to add Ote's time interval into the modified system of Santoro to update displayed information.

As to claim 5, Santoro teaches the computer system of claim 4, wherein the predetermined intervals are such that the thumbnail images are real-time representations of the video output from the active software applications (real-time and active applications, e.g., col. 8 lines 30-67).

As to claim 16, this is a method claim of system claim 3. Note the rejection of claim 3 above.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable Santoro et al. (U.S. Patent No. 6,724,403) in view of Vineyard, Jr. et al. (U.S. Patent No. 6,727,920 B1), and further in view of Brett (U.S. Patent No. 5,850,471).

As to claim 7, the modified Santoro does not teach the reduced-size representations are created using a bilinear sampling technique; however, Brett clearly describes the bilinear sampling technique in his High-definition Digital Video Processing System (col. 10 lines 58-74 and col. 11 lines 1-11). It would have been obvious, at the time of the invention, a person with

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ordinary skill in the art would want to have this data reduction feature of Brett's bilinear sampling technique into the modified system of Santoro to improve performance and quality in graphic data loading process (col. 11 lines 1-10).

### *Response to Arguments*

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mernyk et al. (U.S. Patent No. 6,496,206 B1) teach thumbnails, reduce size, interval, and active background (cols. 2-6 and figs. 1-4).

Ishida (U.S. Patent No. 5,684,969) teaches active thumbnails, listing, timing, and interval (cols. 3-13 and figs. 3-22).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T Chuong whose telephone number is 571-272-4134. The examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Truc T. Chuong

02/05/05

  
**BAHUYNH**  
**PRIMARY EXAMINER**